Response to Arguments

Applicant's arguments filed 2/26/2008 have been fully considered but they are not persuasive.

The applicant's invention relates to the fields of printing an enlarged image without degradation of image quality.

The Examiner has given careful consideration to the applicant's specification and claims, to the applied prior art references, and to the respective position articulated by the applicant, Examiner makes the determinations, as follows: the prior art Nishikawa in fig. 11 enlarged an A4 size image 16 times (4x4) to print, an enlargement ratio corresponding to the determined number of A4s. It would have been obvious to an ordinary person skilled in the art to obtain the same printing result of one times A4 size image as the result obtained by a printer having the enlarged image 16 times A4 size image, see fig. 11. The second prior art Edelson discloses in col. 1 lines 10-11 an apparatus (refers to a CRT monitor in fig. 3 #314, and in col. 18 line 21 teaches that the apparatus can be a high resolution printer) for expanding the size of an image while maintaining image quality.

Examiner's notes: for these reasons the combination of the two prior arts teaches each limitation of independent claim 1. Independent claims 6, 12 and 15 recite similar subject matter to that of independent claim 1 and therefore similar rational applied to each of Independent/dependent claim as given above.

The previous rejections are still maintained, and Examiner encourages Applicant to schedule an interview.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

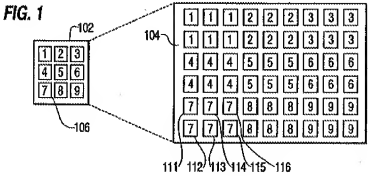
Claims 1, 5-6, 10, 12, 14-15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. US 6,507,411 B1, hereinafter Nishikawa, and in view of Edelson 5,774,110.

1. Re. claim 1.

Nishikawa in figs. 10 and 11 illustrates a method of enlarging an image and (see Nishikawa in fig. 17 steps 17.4-17.6) printing an enlarged image, the method comprising: (Nishikawa in fig. 2 using the image data generated by the application 201) identifying an image file having an image to be enlarged and printed. Nishikawa at col. 15 lines 15-30 discloses determining the number of pixels of the image using the identified image file. Nishikawa at col. 15 lines 22-27 clearly discloses, "if the graphic engine is a 16-bit graphic engine and a 600-dpi (examiner's note: dpi stands for dot per inch, and dot means pixel) A4 landscape-size image is to be enlarged ten times, the number of pixels in the horizontal direction will be 10x600 (dot/inch) x296 (mm)/25.4 (mm/inch)=69,921 dots. Nishikawa in fig. 18 steps 18.1-18.3 illustrates enlarging the image at the determined enlargement ratio and printing the enlarged image.

Nishikawa does not teach explicitly (see bolded and underlined area) determining an enlargement ratio corresponding to **the determined number of pixels to print without degrading image resolution quality**.

However, Edelson teaches determining an enlargement ratio corresponding to the determined number of pixels to print without degrading image resolution quality, e.g., in fig. 1 illustrates the enlargement ratio as 1:6 that means each pixel in an original image 102 are replicated six times to make a 3X2 enlargement 104, and the original pixel values 1-9 in 102 have not been degraded, because the enlarged pixel values 1-9 can be seen in 104, also in col. 4 lines 6-8 teaches the filter RAMDAC can control the quality of images expanded. Edelson in col. 18 lines 16-37 teaches that a printer can be suitable as a display device.



Thus, it would have been obvious to a person skill in the art to incorporate the digital images of Edelson into Nishikawa in order to obtain the enlarged image without degrading image resolution quality by implementing a tracking filter, the contents of the interspersed pixels become inconsequential and can contain any value, even replication values. Because

replicated pixels do not interfere with the filter function, the filter can follow and operate on the output of standard hardware or software zoom functions which replicate pixels.

Claims 6, 12 and 15 are rejected with similar reason as set forth in claim 1, above.

2. Re. claims 5, 10, 14, and 19. Nishikawa in fig. 17 step 17.3 clearly illustrates the feature of the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4,7-9, 11, 13, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa, Edelson and further in view of Ishizaka et al. US 2003/0179953 A1.

3. Re. claims 2, 3 and 7-8.

Nishikawa and Edelson are silenced as to the image file identifying step further comprises selecting the image file. Ishizaka at paragraph 0006 discloses displaying or printing of such digital images with high quality has been demanded with distribution of digital cameras. It's obvious the digital camera has numerous image files. Re. claims 3 and 8, the digital camera can be considered as an outside source. Ishizaka at [0026] discloses that according to the invention, there is provided an image processing apparatus for performing enlargement processing of an original image represented by a large number of pixels to provide an enlarged image

Thus, it would have been obvious to a person skill in the art to incorporate the digital images of Ishizaka into Nishikawa and Edelson in order to obtain a selection of image files, because Ishizaka's processing method, and an image processing program for performing the enlargement processing using a computer, with Nishikawa's printing control for printing an image upon enlarging the same. It's very beneficial to selective user to locate the image file quickly.

4. Claims 16-17 are rejected with similar reason as set forth in claims 2-3, and 7-8.

5. Re. claims 4, 9 and 13.

Nishikawa and Edelson are silenced as to the number of pixels is extracted from header information stored in the identified image file. Ishizaka at paragraph 0006 discloses when the objective image is again formed from the set of the range block positions; coordinate conversion, and pixel value conversion, the operation of assigning the result of performing coordinate conversion and pixel value conversion to range block for any initial image to domain block is iterated. Ishizaka at paragraph 0117 teaches the enlarged image corresponding to the original image is stored in the enlarged image data storage section 58 and the enlarged image is updated. The enlarged image data obviously contains the number of pixels.

Thus, it would have been obvious to a person skill in the art to incorporate the enlarged image data storage section 58 of Ishizaka into Nishikawa and Edelson in order to extract the number of pixels from header information stored in the identified image file, since Ishizaka's processing method, for storing the enlarged image data in storage section using a computer, and Nishikawa's printing control for printing an image upon enlarging the same. The user may quicker select the proper information on display.

6. Re. claim 11. Nishikawa and Edelson are silenced about the features in claim 11, however, Ishizaka illustrates in table 1, under paragraph 0123. Thus, it would have been obvious to a person skill in the art to incorporate the enlarged image data storage section 58 of Ishizaka into Nishikawa and Edelson in order to extract the number of pixels from header information stored in the identified image file, since Ishizaka's processing method, for storing the enlarged image data in storage section using a computer, and Nishikawa's printing control for printing an image upon enlarging the same. The user may quicker select the proper information on display.

7. Claim 18 is rejected with similar reasons as set forth in claim 4, above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAVID A. AMINI whose telephone number is (571)272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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